# PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 213 (CHURCH HILL RD.) AND SPANIARD NECK RD./WEXFORD RD. IN QUEEN ANNE'S COUNTY. MD 213 (CHURCH HILL RD.) IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

#### INTERSECTION OPERATION

THE INTERSECTION IS CURRENTLY UNSIGNALIZED. THE INTERSECTION WILL NOW OPERATE IN A NEMA FOUR-PHASE, FULLY-ACTUATED MODE WITH CONCURRENT SIDE STREET PHASING.

## **CONTROLLER REQUIREMENTS**

INSTALL A FULL-TRAFFIC ACTUATED EIGHT-PHASE CONTROLLER, ONE (1) FOUR-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER AND VIDEO DETECTION INTERFACE EQUIPMENT HOUSED IN A NEMA SIZE SIX BASE MOUNTED CABINET.

### SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE MSHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR MUST PROVIDE MR. SNYDER WITH THE NEAREST ADDRESS, ZIP CODE, AND PHONE NUMBER.

#### **EQUIPMENT LIST "A"**

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

DESCRIPTION

ITEM NO. NONE

### EQUIPMENT LIST "B"

**QUANTITY** 

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	DESCRIPTION						
LS	MAINTENANCE OF TRAFFIC						
LS	REMOVE AND DISPOSE OF MATERIAL AND EQUIPMENT						
3 CY	TEST PIT EXCAVATION						
160 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH						
220 LF	5 INCH YELLOW HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING						
225 LF	5 INCH WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING						
90 LF	24 INCH WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING						
1 EA	WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING 'ONLY'						
2 EA	WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROW						
1 EA	CONTROLLER AND CABINET - BASE MOUNT						
1 EA	VIDEO INTERFACE EQUIPMENT						
33 EA	12 INCH LED SIGNAL HEAD SECTION						
12 CY	CONCRETE FOUNDATION FOR SIGNAL						
1 EA	16.5 FT. MAST ARM POLE & 70 FT. MAST ARM						
1 EA	16.5 FT. MAST ARM POLE & TWIN 50 FT./60 FT. MAST ARMS						
8 EA	ELECTRICAL HANDHOLE						
15 LF	2 IN SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED						
50 LF	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED						
890 LF	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED						
145 LF	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT- BORED						
10 LF	1 IN. LIQUID-TIGHT, FLEXIBLE, CONDUIT - DETECTOR SLEEVE						
2 EA	REMOVE AND DISPOSE OF EXISTING 'STOP' SIGN						
2 EA	VIDEO DETECTION CAMERA AND CABLE						
30 LF	WOOD SIGN SUPPORTS 4 IN. X 4 IN.						
215 LF	WOOD SIGN SUPPORTS 4 IN. X 6 IN.						
1 EA	METERED SERVICE PEDESTAL EMBEDDED						
50 LF	ELECTRICAL CABLE 1 - CONDUCTOR (NO. 4 A.W.G.)						
110 LF	ELECTRICAL CABLE 5 - CONDUCTOR (NO. 14 A.W.G.)						
1115 LF	ELECTRICAL CABLE 7 - CONDUCTOR (NO. 14 A.W.G.)						
150 LF	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)						
5 EA	3/4 IN. X 10 FT. GROUND ROD						
2 EA	MICRO-LOOP PROBE WITH LEAD IN CABLE						
2 EA	D-3(1) (VAR X 16") DUAL FACE SIGN MAST ARM MOUNT						
1 EA	D-3(1) (VAR X 16") SIGN - MAST ARM MOUNT						
1 EA	M95-1/D3-2 (78" X 40") - MAST ARM MOUNT						
1 EA	R3-5L (30" X 36") SIGN - MAST ARM MOUNT						
2 EA	R3-7L (30" X 30") SIGN - GROUND MOUNT						
2 EA	D3-2(2) (VAR X 48") SIGN - GROUND MOUNT						
2 EA	W3-3 (48" X 48") WITH "NEW" PANEL (24" X 24") AND FLAGS - GROUND MOUNT						

## **EQUIPMENT LIST "C"**

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

QUANTITY <u>DESCRIPTION</u> NONE

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

SHIELD ASSEMBLY (30" X 51") - GROUND MOUNT SHIELD ASSEMBLY (48" X 75") - GROUND MOUNT

### CONTACT PERSONS FOR DISTRICT 2 ARE AS FOLLOWS:

ASSISTANT DISTRICT ENGINEER - TRAFFIC

ASSISTANT DISTRICT ENGINEER - MAINTENANCE (410) 810-3240 (410) 810-3250

MR. BARRY CLOTHIER UTILITY ENGINEER (410) 810-3275

(410) 787-7631

### CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR. CHIEF, TRAFFIC OPERATIONS (410) 787-7630

MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS (410) 787-7676

MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS

MR. MIKE STOCKER SUPPLY OFFICE SIGNAL SHOP WAREHOUSE (410) 787-7668

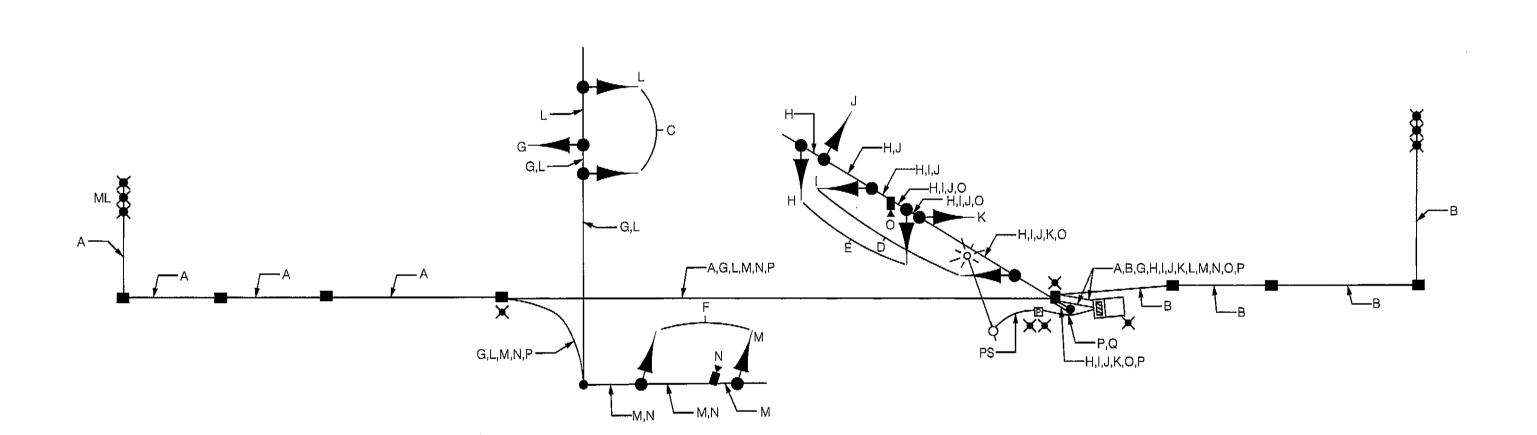
MR. ED RODENHIZER CHIEF - SIGNAL OPERATIONS SECTION (410) 787-7652



# PHASE CHART

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#### WIRING DIAGRAM



#### WIRING KEY

MICRO-LOOP PROBE LEAD-IN 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) VIDEO DETECTION CABLE STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.) 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.) - 3 WIRES MICRO-LOOP PROBE PROPOSED ELECTRIC SERVICE GROUND ROD METER SERVICE PEDESTAL

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION MD 213 (CHURCH HILL RD.) AND SPANIARD NECK RD./WEXFORD RD.

CENTERVILLE, MARYLAND

# TRAFFIC CONCEPTS, INC.

325 Gambrills Road Suite B Gambrills, MD 21054 (410) 923-7101 FAX: (410) 923-6473

EMAIL: TRAFFIC@TRAFFIC-CONCEPTS.COM

FILE PATH: M:\2000\2044\SIGNAL\3-11-11.dgn DATE: Tuesday, May 24, 2011 AT 03:30 PM

GENERAL INFORMATION PLAN							
SCALE NO	NE DATE	5–24–11	BW996M82				
DESIGNED BY	T.ZAYDEL	_ COUNTY	QUEEN	QUEEN ANNE'S			
DRAWN BY	J.K. SCHMID	_ LOGMILE	17021	17021308.93			
CHECKED BY	K. SCHMID	T.I.M.S. NO	o. <u>K</u> -	K-400			
F.A.P. NO.	N/A	_ TOD NO.					
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DRAWING NO.	TS – 4787 GI		SHEET NO.	2 OF 2			